REMARKS/ARGUMENTS

Claims 1-17 are pending in this application. By this Amendment, Applicants AMEND claims 8 and 9 and ADD claims 16 and 17.

The Examiner has indicated that the outstanding Office Action is a Final Office Action (paragraph no. 17 of the Office Action). The Examiner is reminded "[b]efore [a] final rejection is in order[,] a **clear issue** should be developed between the examiner and applicant." MPEP § 706.07 (emphasis added). No clear issue has been developed since the grounds for the prior art rejection are improper.

In paragraph no. 2 on page two of the Office Action, the Examiner rejected claims 1 and 7 under 35 U.S.C. §102(e) as being anticipated by Fujimoto et al. In the discussion of the prior art rejection under 35 U.S.C. §102(e), the Examiner alleged that Fujimoto et al. teaches the feature of "the volume of said first layer being in the range from about 20% to about 95% of the total volume of the interdigital transducer."

However, in paragraph no. 17 on page 7 of the Office Action in support of his 35 U.S.C. §102(e) rejection of claims 1 and 7 and in response to Applicants' Request for Reconsideration, the Examiner alleged that, in view of In re Aller, 105 USPQ 233, 235 (CCPA 1955), it would have been **obvious** to modify the Fujimoto et al. reference to provide the recited feature of "the volume of said first layer being in the range from about 20% to about 95% of the total volume of the interdigital transducer."

Thus, the Examiner has clearly admitted in paragraph no. 17 on page 7 of the Office Action that the basis for the rejection of claims 1 and 7 is obviousness, **NOT** anticipation. Clearly, the basis for the prior art rejection is improper and must be changed.

Furthermore, it is quite clear that the Examiner has failed to establish a **clear issue** by mixing the concepts of anticipation and obviousness and failing to provide a proper basis for making the prior art rejection of the claims. Accordingly, Applicants respectfully request reconsideration and withdrawal of the Finality of the Office Action.

The Examiner has alleged that Applicants' Request for Reconsideration, dated

October 17, 2002, does not comply with 37 CFR 1.111(c) because "they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objection made. Further, they do not show how the amendments avoid such references or objections" (paragraph no. 16 on page 7 of the Office Action). **APPLICANTS CANNOT MORE STRONGLY DISAGREE.**

First, Applicants clearly stated that Fujimoto et al. "fails to teach or suggest 'the volume of said first layer being in the range from about 20% to about 95% of the total volume of the interdigital transducer' as recited in the present claimed invention" (see paragraph bridging pages 2 and 3 of the Request for Reconsideration). Applicants then continued for the next two pages (pages 3 and 4) of the Request for Reconsideration describing what claimed features that they considered distinguish over the prior art. There is absolutely no basis in fact or in the written record that would support even the allegation, and certainly the conclusion, that Applicants did not comply with 37 CFR 1.111.

Second, Applicants agree that "they [did] not show how the **amendments** avoid such references or objections" (emphasis added) because **APPLICANTS DID NOT FILE AN AMENDMENT, THEY FILED A REQUEST FOR RECONSIDERATION** in which **NO** amendment to any claim was made. Applicants filed a Request for Reconsideration that complies with 37 CFR 1.111(b), which is directed to Requests for Reconsideration, **NOT** 37 CFR 1.111(c) which is directed to amendments. 37 CFR 1.111(c) is not applicable to Applicants' Request for Reconsideration.

Accordingly, Applicants strongly urge the Examiner to reconsider and withdraw his allegation that Applicants' Request for Reconsideration does not comply with 37 CFR 1.111(c).

Applicants have added claims 16 and 17 and amended claims 8 and 9 to depend upon claims 16 and 17, respectively, to provide proper antecedent basis for all of the features recited in claims 16 and 17.

Claims 1 and 7 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Fujimoto et al. (U.S. 6,088,462). Claims 2-6 and 8-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujimoto et al. in view of common knowledge in the art. Claims 10-12 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujimoto et al. in view of Morishita et al. (U.S. 4,425,554). Claims 13 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujimoto et al. in view of Morishita et al., and further in view of common knowledge in the art. Applicants respectfully traverse the rejections of claims 1-15.

Claim 1 recites:

> "A surface acoustic wave device utilizing a Shear Horizontal wave, comprising:
> a piezoelectric substrate; and
> an interdigital transducer provided on the piezoelectric substrate, the interdigital transducer including at least three metal layers containing at least one first layer made of a metal with a density of about 15 g/cm^3 or more as a major component and at least one second layer made of a metal with a density of about 12 g/cm^3 or less, **the volume of said first layer being in the range from about 20% to about 95% of the total volume of the interdigital transducer**." (emphasis added)

Applicants' claim 1 recites the feature of "the volume of said first layer being in the range from about 20% to about 95% of the total volume of the interdigital transducer." With the improved features of claim 1, Applicants have been able to provide a surface acoustic wave device which utilizes a SH wave which minimizes dispersions in the center frequency of the device, so that it is not necessary to adjust the frequency after the IDT and the reflector are produced (see, for example, the 2nd full paragraph on page 3 of Applicants' originally filed Specification).

The Examiner is reminded that it is a canon of patent law that a "claim is anticipated only if **each and every element** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Examiner has maintained the rejection of Applicants' claim 1 under 35 U.S.C. §102(e). The Examiner has alleged in the first paragraph on page 3 of the Office Action that "the volume of said first layer being in the range from about 20% to about 95% of the total volume of the interdigital transducer" as recited in Applicants' claim 1 is taught by Fujimoto et al. at "(column , lines 49-54)."

First, the Examiner has clearly not provided a proper reference to Fujimoto et al. to support this allegation because he has not made reference to any specific column or lines of Fujimoto et al. It is noted that the Examiner alleged that this feature was taught in "column , lines 49-54" on page 3 of the outstanding Office Action. Thus, the Examiner failed to include a column number in this reference to the specification of Fujimoto et al. and Applicants cannot ascertain what column number the Examiner attempted to refer to.

Second, Fujimoto et al. does not use the term "volume" anywhere in the patent. There is also no suggestion whatsoever anywhere in the Fujimoto et al. patent of any relationship between the volume of a first layer relative to the volume of an IDT. Fujimoto et al. is directed to adjusting the normalized thickness of W or Ta electrodes and the Euler angels of a quartz substrate.

Third, the Examiner has **ADMITTED** that Fujimoto et al. does not teach this feature. In response to Applicants' Request for Reconsideration, the Examiner stated, in paragraph no. 17 on page 7 of the Office Action, "it must be noted that it would have been **obvious** to one having ordinary skill in the art at the time of invention was made to set the volume in the range from about 20% to about 95% of the total volume of the interdigital transducer" (emphasis added). This is a clear admission by the Examiner that Fujimoto et al. does not teach "each and every element" recited in claim 1 of the present application because Fujimoto et al. clearly does not teach "the volume of said first layer being in the range from about 20% to about 95% of the total volume of the interdigital transducer" as expressly admitted by the Examiner in paragraph no. 17 on page 7 of the Office Action.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. §102(e) as being anticipated by Fujimoto et al.

The Examiner has relied upon Morishita et al. to teach the use of reflectors in SAW devices. However, Morishita et al. clearly fails to teach or suggest that "the volume of said first layer being in the range from about 20% to about 95% of the total volume of the interdigital transducer" as recited in Applicants' claim 1.

In anticipation of the Examiner changing the rejection to an obviousness type rejection under 35 U.S.C. §103(a) relying in part on In re Aller, 105 USPQ 233, 235 (CCPA 1955), the Examiner is pointed to MPEP § 2144.05. In order to use the optimization discussed in In re Aller, the Examiner **MUST** show that the particular parameter to be optimized is a **RESULT EFFECTIVE VARIABLE**. In re Antonie, 195 USPQ 6 (CCPA 1977) (The claimed wastewater treatment device had a tank volume to contractor area of 0.12 gal./sq. ft. The prior art did not recognize that treatment capacity is a function of the tank volume to contractor ratio, and therefore the parameter optimized was not recognized in the art to be a result- effective variable.). It is the Applicants' position that the volume of the electrode layer recited in Applicants' claim 1 corresponds to the tank volume of In re Antonie because the Examiner has failed to provide any reference with any hint or suggestion that the volume of the electrodes was recognized as a result effective variable.

Of note, the Examiner has relied upon St. Regis Paper Co. v. Bemis Co., 193 USPQ 8 (7th Cir. 1977) in his rejection of claims 2-6, 8 and 9. St. Regis Paper Co. v. Bemis Co. comes from a line of cases that required a synergistic effect of old combination claims. This line of cases was clearly rejected in Republic Industries v. Schlage Lock Co., 200 USPQ 769 (7th Cir. 1979), and thus, St. Regis Paper Co. v. Bemis Co. should no longer be relied upon in rejecting claims. It should also be noted that the MPEP does not even mention St. Regis Paper Co. v. Bemis Co., and thus, it is clearly improper for the Examiner to rely upon this rejected case law.

Accordingly, Applicants respectfully submit that Fujimoto et al. and Morishita et

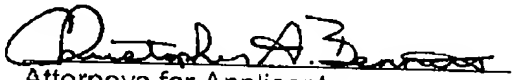
al., applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in claim 1 of the present application. Claims 2-17 depend upon claim 1, and are therefore allowable for at least the reasons that claim 1 is allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Date: June 18, 2003



Attorneys for Applicants

Joseph R. Keating
Registration No. 37,368

Christopher A. Bennett
Registration No. 46,710

KEATING & BENNETT LLP
10400 Eaton Place, Suite 312
Fairfax, VA 22030
Telephone: (703) 385-5200
Facsimile: (703) 385-5080